Lab 6 - Pseudocode

Saturday, April 11, 2020 11:09 AM

The functionality required for Lab6 can be described with following pseudocode:
Part I

- Initialize clock
- Initialize UART
- Configure I/O line as output for LCD reset
- Reset LCD module with I/O port line
- Initialize SPI interface
- | limit = 0 | | | | // indicates that both lines are full |
- char_count = 0
- line = 1

```
If(UART has input char) AND (not reached limit)
        Increment char_count
        If (printable character)
                Output char to LCD display
        If((line=1) AND ((input=CR) OR (char_count=16)
                line=2
        else
                if ((line=2) and ((input is CR) OR (char_count=16))
                        limit = 1
```

Done:	Spin loop

Part II

- Initialize clock
- Initialize UART
- Configure I/O line as output for LCD reset
- Reset LCD module with I/O port line
- Initialize SPI interface
- char_count = 0
- line = 1

```
If(UART has input char)
        Increment char_count
        If (printable character)
                Output char to LCD display
        If((line=1) AND ((input=CR) OR (char_count=16))
                line=2
        else
                if ((line=2) and ((input is CR) OR (char_count=16))
```

Copy line 2 content to line 1 buffer
If (char_count<16) pad buffer with 0's

Move LCD cursor to 1,1		// start of line 1

Write buffer 1 content to LCD

Move LCD cursor to 2,1		// start of line 2
char_count = 0;		// start again on line 2